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EDUCATION IN ITS RELATION TO THE PHYSICAL HEALTH OF
THE BRAIN.

A

LECTURE

DELIVERED BEFORE THE

RHODE ISLAND INSTITUTE OF INSTRUCTION,

OCTOBER 18, 1850.

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LECTURE.

IN requesting me to address you on this occasion, it was probably with the expectation that I should regard the subject of education from a professional point of view. In the pursuit of my calling, I have, unquestionably, had much experience that might be profitably pondered by you, and perhaps I could not better promote the object of your association than by bringing before you some of the conclusions to which it has led. If I have had the unenviable lot of beholding on a large scale the havoc made by ignorance or wilful disregard of the natural laws upon the noblest possession of man, the very extent of this experience may give a weight to the lesson of warning which no other consideration would.

Of late years the study of physiology has received so much attention from teachers, that I do not suppose any general truths or principles which I shall have occasion to adduce will be new to any one who hears me. The knowledge thus acquired, however, is apt to be inert, from the want of opportunities for applying it, or seeing it applied, in actual practice. It is like the knowledge of farming acquired solely from books, — an excellent preparation for agricultural pursuits, but, unaided by a knowledge of implements and processes, likely to produce but a barren harvest. But with equal truth it may be said, that the farmer who knows nothing beyond the names of his tools and the manner of using them is no more likely to fall short of the highest rewards of his art, than the teacher of youth utterly ignorant of the mechanism and laws of that noble organ whose manifestations furnish him his appropriate work. If the office of the teacher is to unfold, quicken, develop, educate the powers of the mind, it scarcely admits of a question that he needs to be well informed respecting the material organ

with which the mind is connected. The worth of good teaching he may well understand, and yet be little aware of incurring any of that responsibility which is incident upon the power to do evil as well as good. If he would be content with always revolving in that humble sphere of his art in which the teacher is but a passive instrument in the work of education, supplying merely a catchword, or, at the most, removing a temporary hinderance, regarding the brains upon which he operates as so many pieces of brute mechanism from which he is to obtain the greatest possible amount of work, without any reference to ultimate consequences, leaving upon his pupil life-long impressions which he feels no pleasure in recalling, let him avoid all knowledge of the functions and capacities of the bodily structure, of the laws of health and disease, — he need not know even that his pupil has a brain ; — in short, let all these things be as foreign to his apprehension as the chemical constitution of the soil is to the Southern slave, who sows the seed in the spring and finds a crop in the autumn. If,

on the other hand, the teacher would exalt his office and vindicate its worth and dignity before men, he must pursue his calling in the spirit of a science that aims at objects of the noblest character, and recognizes only the most philosophical methods of investigation.

No organ of the body is so strongly distinguished from the corresponding organ in the lower animals, in the delicacy of its tissues, and the amplitude and development of its various parts, as the brain. In respect to every other, our species is surpassed by some one or other of the brutes ; but we may search in vain, through the whole order of creation, for a brain that can be compared, in any respect, to man's. But who shall measure the magnitude of its office, or set limits to the results of its exercise ! With such an organ placed under his control at a period of life when it is most susceptible of impressions, that teacher who is satisfied with a very limited knowledge of its functions, capacities, and relations, is faithless to his trust. From the many points presented by the subject on which every

teacher should have mature and settled conclusions, I have selected two to which I would invite your attention, namely, the amount of exercise, in relation to age, of which the brain is capable, and the effect of the unequal cultivation of its several faculties upon its health and vigor.

It might, at first thought, appear as if no class of persons had better opportunities than teachers for gaining the requisite knowledge on these points from their own experience, and consequently required less help from others. It is their business to direct the culture of the youthful mind, the products of their labor are constantly before their eyes on a large scale, and each individual case may be considered in the light of an experiment having a definite and appreciable result. But it is one thing to see, and another to observe. We see what passes before our eyes, but we often fail to observe whatever is not directly and necessarily connected with the object in hand. The teacher is too often bent upon obtaining the maximum of present intellectual attainment. The proper education of the mind, or that kind of training which

has reference to its power of endurance, its capacity to minister to the health, happiness, and progress of the individual to the latest period of life, — alas, how often is it lost sight of amid the more attractive displays of intellectual precocity ! The mischief produced by excessive or misdirected mental exercise is manifested on another scene quite beyond the circle of the teacher's observation. He may miss, from time to time, some familiar face, and hear the absence attributed to illness ; but the flushed cheek, the aching brain, the trembling muscle, may never meet his notice, or if they do, the suspicion may never enter his mind that they have been produced by his injudicious management rather than the thousand other causes of disease. It is because the physician often sees this result, and is in the habit of searching for the causes of the disease for which he is required to furnish a remedy, that he is better acquainted with the subject than the teacher. But however that may be, no contribution to our knowledge on a matter of so much importance should be slighted, from whatever quarter it may come.

The first point in this inquiry that meets our attention is, at what point education should begin. Taken in its broadest sense, it can hardly be said to begin too soon ; but the question I propose to consider refers to that kind of intellectual training which consists of stated tasks or exercises. On this point there is an extraordinary want of those clear and systematic views that we generally find respecting the training of the domestic animals, among those who are obliged by their pursuits to have some opinion upon the subject. With them there is but little diversity of practice as to the age when a horse or an ox should be put to work, or the relative amount of work required of them at different periods. They are seldom guilty of the folly of subjecting the young of these animals to exertions scarcely within the power of their maturer age. The fact is, — and it is one that should be habitually recognized and acted on by all who have any concern in the work of education, — that among the higher orders of animals, not one steps into existence possessing in full measure all the capacities

of its kind. Feeble and dependent at first, it gradually arrives, by a course of growth and development, to full stature and complete strength. And the principle is not only true of independent individuals, but of the different organs or systems of which the individual is composed. We know that many years must elapse before the stomach, the lungs, the muscles, the senses, are able to perform their appropriate functions with that degree of activity and strength to which they finally arrive. In like manner, the power of the human brain is affected by age ; and this truth the teacher must ever bear in mind, if he would avoid the cruelty of tasking it with exercises in early life more suited to the maturity of manhood.

The precise period at which school instruction should begin will vary a little, of course, in different children ; but I feel quite safe in saying that it should seldom be until the sixth or seventh year. Not that the mind should be kept in a state of inactivity until this time, for that is impossible. It will necessarily be receiving impressions from the external world, and these will

begin the work of stimulating and unfolding its various faculties. Instinctively the young child seeks for knowledge of some kind, and its spontaneous efforts may be safely allowed. With a little management, indeed, they may be made subservient to very important acquisitions. In the same way that it learns the names of its toys and playthings, it may learn the names of its letters, of geometrical figures, and objects of natural history. There can be but little danger of such exercises being carried too far. But the discipline of school, of obliging the tender child to sit upright on an uncomfortable seat, for several hours in the day, and con his lessons from a book, is dangerous both to mind and body. To the latter, because it craves exercise almost incessantly, and suffers pain and distortion from its forced quietude and unnatural postures. To the former, because it is pleased with transient emotions, and seeks for a variety of impressions calculated to gratify its perceptive faculties. The idea of *study* considered in relation to the infant mind, of appropriating and assimilating the con-

tents of a book, of performing mental processes that require a considerable degree of attention and abstraction, indicates an ignorance of the real constitution of the infant mind that would be simply ridiculous, did it not lead to pain, weariness, and disgust. And such is the strange abandonment of all practical common sense on this subject, that many a person fails to view this practice in its true light who would never commit the folly of beginning the training of a colt by taking it from the side of its dam, harnessing it to a miniature cart or plough, and keeping it at work through a sultry summer's day.

At the age of six or seven, then, the child may be sent to school, or have its stated tasks. I do not doubt that this period may be very properly anticipated in some cases, and delayed in others, but practically it will not be found expedient to vary from it much. Children of quick and mature minds may accomplish much before this age, but such minds should be held in check rather than stimulated to exertion, and more dull and sluggish intellects should, for that very reason, begin their training without any further delay.

The amount of work which may be required without impairing the vigor of the mind will depend on several circumstances, — on the general power of the constitution, the character of the individual mind, the means used for preserving health, and the skill of the teacher in drawing out the different faculties. The limits of this discourse will prevent me from noticing these circumstances with much particularity.

The process of education makes large drafts on the physical powers. Confinement to the benches of a school-room for several hours in the day, accompanied by close application of the mind, is a very different thing from the unrestrained use of the limbs and powers of locomotion, and careless rambling of the attention, so natural to youth. A firm and robust child, of a sanguine temperament, will obviously meet the demand on his vital powers better than the thin, lymphatic, tenderly-nurtured child whom the winds of heaven have not been allowed to visit too roughly. I fear these physical diversities have not been sufficiently considered by teachers, in

regulating the mental discipline of their pupils, for the medical man has frequent occasion to deplore, without being able to remedy, the mischief that arises from inattention to this fact. In regard to the character of the individual mind, in this relation, it need merely be said, that, if characterized by quickness and aptitude, it will bear a somewhat greater amount of exercise than one of an opposite character ; but the risk of overworking a mind of the former temper is sufficient to deter us from increasing its tasks.

During the first few years of childhood, — from six to thirteen, — the character of the mental and physical constitution will determine, for the most part, the amount of mental exercise the teacher may safely require, the other circumstances mentioned in this connection having more influence at a subsequent period. Six hours is the usual length of a school day, summer and winter, for old and young, bright and dull. For the youngest, and for all not favorably organized, this is certainly too long. A feeble child, six years old, not only deprived of its liberty of motion six hours

in the day, but subjected to an unwonted toil of mind, is in danger of serious injury, if we know any thing of nature's laws, or may be taught by the light of experience. True, the length of the school day does not necessarily determine the exact amount of mental exercise, but the connection is sufficiently close for our present purpose. With the older children, six hours may not be too much, provided their physical health is good. Under the very common practice of giving lessons that must be learned, if learned at all, out of school, the period of study is lengthened by some additional hours, generally in the evening. Thus the closing hours of the day, instead of being given up to agreeable exercise or pastime, calculated to bring into activity the moral affections that have been dormant the rest of the day, to renew the mental energies, and prepare the system for sound and refreshing sleep, are painfully occupied in conning the unwelcome task. Weary and dispirited, the youth goes to his bed in a state of nervous excitement, his brain swarming with images of lines, numbers,

quantities, places, and times, which give rise to disagreeable dreams, and impair the restorative effect of sleep. These evening studies are decidedly wrong. If any principle of physiology may be considered as established, it is this, that to insure sound sleep, active mental exercise should be avoided for some time before it is sought.

If mental occupation is desired out of school, it would be better to have it in the shape of reading adapted to the taste and age, whereby another object would be obtained. We should ever bear in mind that education is a means, not an end, and endeavor to impress this truth on the youthful mind. One of the most important of these ends is, to create a love of intellectual pleasures and pursuits ; but we might as reasonably expect the penitentiary convict to be charmed with that labor which is imposed upon him as a punishment for crime, and be prepared by it for a future life of honest industry, as to suppose that books which are associated with the idea of toil and task-work can ever become a

source of rational gratification. If, while plodding along the tedious road of learning, the pupil is allowed occasionally, by means of judicious reading, to catch a glimpse of its higher ends and rewards, it will sweeten his toil, and impart a new value and significance to the wearisome pages of his school-book. Besides, we must not forget, that, where a taste for reading exists, the means for its gratification will be found ; and the teacher, especially, must not forget, that his text-books will have far less to do with the formation of the man, than those which furnish the recreation of a leisure hour. I am not sure that reading aloud from some instructive and entertaining book might not profitably occupy some portion of school time, for the purpose of exciting a healthy mental activity, and forestalling a taste for the miserable trash of our time, which is chiefly patronized by the young.

It is especially after the twelfth or fourteenth year, that the process of education is driven forward with a rapidity dangerous both to the mental and physical health. It is the period when the

deficiencies of childhood are to be repaired, when competition excites the efforts of the youth and the envy of his friends, and the prospect is filled with pleasing hopes and ambitious schemes. If to these inducements we add another, more vulgar but not less common, that of obtaining the maximum result from the given expenditure, we shall have the most usual reasons for this pernicious overstraining of the tender mind. Surpass, outshine, — these are the potent words ever ringing in the ears of many an ingenuous youth ; and if he break down in the race, the calamity is regarded as a mysterious visitation of Providence rather than a daring violation of a natural law.

Of late years, I have had but little opportunity of knowing how the higher class of schools is managed in this respect, but I have some reason to believe that there has been no essential change since the days of my own early experience. At one of the highest academies in New England, the age of the scholars ranging from ten to twenty, the school time was eight hours, and two or three more hours of study out of school were requisite

in order to accomplish the tasks with tolerable credit.

But it is in boarding-schools for girls obtaining the finishing touches of their education that this forcing process is carried to its extreme limits. A few years since, Dr. Forbes of London published the order of exercises in an English school, from which it appeared, that the girls spent in school, at studies or tasks, nine hours ; in school or in the house, the older at optional studies or work, the younger at play, three and a half hours ; in sleep, nine hours ; at meals, one hour and a half ; in exercise in the open air, one hour.

The daily routine of similar schools among ourselves, at the present time, is probably, with an occasional exception, of a very similar character. From such information as I have been able to collect, I find that, generally, the time spent in study and recitations varies from eight to ten hours, seldom more than one hour being given to bodily exercise. In a very fashionable school in New York, the girls rise at a quarter past six, and study till breakfast, at eight ;

from nine till three, with the intermission of half an hour, they are studying or reciting. At three they dine, and then, in pleasant weather, walk out for an hour, in a slow, quiet manner. In bad weather, they go into a narrow room in the basement, and keep themselves warm by jumping about, or hovering around a stove. The hour finished, they study till tea, at six ; and from that time till eight, they work, chat, or do what they please, all in one room. Then they study till prayers at nine, and then to bed, in large associated dormitories, one room seventy feet long containing, sometimes, thirty-five beds. Many of the girls are said to become “nervous.”

In another, of a very different character in other respects, the amount of studying seems to be still greater. The girls rise at half past five ; put rooms in order ; breakfast ; study from seven till nine ; school from nine till twelve ; then dinner ; after which, relaxation till half past two, when school begins, and continues till five ; walk in the open air, or calisthenics in-doors, till tea-time ; study from seven till nine ; prayers, and to bed at ten.

It will be observed, that the mischievous effects of such excessive mental exertion are not counteracted so far as they might be by bodily exercise. This seldom occupies more than an hour in the day, generally consisting of a formal walk, without any end or object beyond that of mere locomotion, and consequently but little calculated to refresh and invigorate the nervous system. Such exercise should be connected with some intellectual object, such as botany, mineralogy, or sketching, otherwise it only adds bodily lassitude to mental weariness.

At what age precisely the mind enjoys its highest vigor, is capable of the greatest efforts and the greatest endurance, is a question that cannot be very definitely answered, and yet it would seem as if some standard should be fixed upon whereby to graduate the degree of mental application at the different periods of life. Examples are not rare of elderly scholars, especially in Germany, who are in the habit of devoting fourteen or fifteen hours in the day to hard study. A distinguished jurist, not long since deceased,

in a neighboring State, was accustomed, for several years immediately preceding his death, which occurred after the age of seventy, to spend fourteen hours a day in severe study. No class of men, probably, perform so great an amount of intellectual labor as English and American judges, sitting in court, as they do, a great part of their time, ten or eleven hours in the day, with their minds constantly on the stretch, amid the disadvantages of badly warmed, badly ventilated apartments, and thence retiring to their rooms, perhaps, to investigate a question of law, or prepare a judgment. The most of these men are past the meridian of life. It is not quite certain, however, that such labors do not make serious drafts on the constitution. Instances that seem to show a different result are probably exceptions to the general rule. There is much reason to believe that the development of mental power proceeds, by equal steps, with that of the body, — that it is precisely during that period when the physical powers are most mature, that the mind is capable of the most close and successful application. No

one would think of looking for this period after the age of fifty ; and if any one, misled by the achievements of some youthful Hercules, supposes it to be on the younger side of twenty, a little examination will convince him of his error. Power of physical endurance, of meeting that wear and tear of the vital forces that results from continuous and protracted activity, proceeds from a certain maturity of the bodily organization and that strength which only habitual trial can generate. Before the age of twenty, this kind of maturity and strength is seldom witnessed, and experiments made upon a large scale, as in war and colonization, furnish abundant proof of this fact. During the last years of the French empire, when the conscriptions were frequently anticipated, in order to supply the frightful waste of life produced by its sanguinary wars, Napoleon often complained, that the young conscripts they sent him were fit only to encumber the hospitals and road-sides. During the period, then, varying not far from thirty on the one side and fifty on the other, the body enjoys its maximum of vigor

and power of endurance, and it is during this period that the history of studious men leads us to believe that the mind displays corresponding attributes. The exact amount of labor which the mind may safely perform, of course, we never can determine, both because the consequences of excessive application are not very clearly exhibited, and the circumstances accompanying it differ so widely in different persons. The fact that many who have accomplished the most, and suffered the least, have rarely exceeded seven or eight hours a day, would warrant the conclusion that this is very near the limit compatible with health and longevity. Such being the case, it follows of course that a much smaller amount of labor than this is suited to the earlier years of life.

To this result we are also led by another order of facts. It is during the period of life occupied with education — from ten or twelve to eighteen or twenty — that many of the predisposing causes of disease are called into activity. Hereditary diseases, especially, — phthisis, scrofula, insanity, hysteria, — begin to claim their victims, and an

apparently trivial violation of the natural laws suffices to throw down the only barrier that keeps them at bay. The larger license allowed to the young at this period in the indulgence of their appetites, passions, and caprices, errors of diet more serious and prevalent than in any other country in the world, together with the usual countless indiscretions of this age, deteriorate the physical health and diminish the power of the brain. Bearing these things in mind, as well as the fact, that nature now often claims the penalty that follows the errors of earlier management, we can readily see how the manner in which the education is conducted, may constitute the turning-point on which the future health both of body and of mind is to depend.

I consider this point of so much importance — involving, as it does, the hopes of families and the dearest treasures of the heart — that I venture to dwell upon it a moment longer, by urging upon you a well-established physiological truth. If the equilibrium between the action of the various organs is disturbed by the excessive exer-

cise of any one of them, an advantage is thereby afforded to any morbid tendencies that may be present, in their struggle with the vital powers. The brain is no less essential in maintaining the activity of every other part, by furnishing them with a due share of innervation, than it is in manifesting the faculties of the mind. But while the proposition that a most intimate connection, or sympathy, as it is termed, exists between the brain and the stomach, heart, lungs, &c., may be universally admitted in general terms, many overlook another proposition that may be regarded as a corollary from this, that if an undue portion of the cerebral energy is expended in maintaining the activity of the mind, this sympathy must necessarily be disturbed, and a series of morbid actions begun, that may end in the most fatal results. Let not the teacher, of all others, overlook this principle, for upon his observance of it or otherwise, it may often depend whether his pupil shall surmount the unfavorable influences pressing upon him, and enter upon manhood with a reliable stock of good health, or, utterly and

irretrievably breaking down, slide into an early tomb, or remain a few years longer, a melancholy spectacle of premature decay. I am aware that the better judgment of the teacher is not unfrequently overborne by an influence he cannot withstand if he would. To gratify the vanity of friends, or for some other equally unworthy purpose, the ambition of the pupil is inflamed by the usual incentives of honors and applause, and he is pushed forward in his course, as if the result depended solely on the force of his own will. His tasks are daily lengthened, the supply of nervous energy is anticipated, and the standard of health is gradually lowered. As yet, however, there is observed no diminution of power, nor unequivocal loss of health ; and thus, while the youth is rejoicing the hearts of his friends by the steadiness of his application and the brilliancy of his attainments, an epileptic fit, it may be, startles them like a clap of thunder from a cloudless sky, dashes their hopes to the ground, and points to a future shrouded in gloom and sadness. In another way this exhaustion of the nervous energies

leads to the same result. On the invasion of fever, or any other acute disease, the restorative power of the system is weakened, and the latter readily succumbs to an attack which it would otherwise have successfully resisted. It is an unquestioned fact among physicians, that, other things being equal, the diligent student is less able to meet an attack of disease than any other class of persons whose brains have not been habitually and severely exercised. Time forbids me to dwell any longer upon this division of our subject, — the amount of work that may be put upon the brain, — although its immense importance would warrant me, if any thing could, in trespassing on your patience. I would present, however, one further consideration which some may regard as more germane to the matter than any other.

The prevalent error of the times is to require of the pupil too much. Governed by the mechanical spirit of the age, we have formed the habit of regarding the youthful brain in the light of a machine that may be worked to the utmost of its capacity. Recreation and rest are regarded

as a loss of valuable time and the lying idle of capital that should be continually productive. This view of the matter arises from the fallacy, that the growth and development of the mind are in exact relation to the amount of task-work it has accomplished. The history of our country, to go no farther, furnishes little support to such a notion. The distinguished men whose early years were spent in an unceasing attendance upon schools and academies, are far outnumbered by those whose means of instruction consisted in a few months' schooling in the winter, and a diligent pondering of such scraps of literature as might be picked out of the basket of the itinerant peddler. If I am told that such men achieve their greatness in spite of the deficiencies of education, and that the benefit of the forcing system is better exhibited in the elevation of an inferior order of minds, I would still reply, that the position, even thus modified, finds no better support. If we look into the walks of commerce, agriculture, or manufactures, and learn the history of those who, without being great, hold a marked position in

society, I think the result of the inquiry will strengthen the view we have taken. I trust it will not be supposed that I mean to question the importance of systematic education, for no one can anticipate greater results from it when generally and judiciously applied. The idea I would convey is, that the efficiency of education is indicated more by the manner in which it is managed, than by the amount of its immediate visible results. Of course, the tree may be judged by its fruits ; but let us not confound with the ripe and full-grown fruits that crown the harvest, the ephemeral blossoms that excite the admiration of the beholder, and forthwith perish, leaving no trace behind.

I now come to the second general division of our subject, — the effect of the unequal cultivation of the different faculties of the mind upon its health and vigor. An efficient, reliable, and healthy education — healthy, I mean, as regards both mind and body — requires the cultivation of all the faculties in their due proportion. The

great principle of equilibrium that regulates the forces of brute matter, whereby they balance one another and concur in the production of a perfect result, also presides over those of animate matter. If, in the process of education, this principle is disregarded, and the different mental powers are unequally cultivated, — some utterly neglected, and others stimulated to the very verge of morbid activity, — the result will be a narrow, short-sighted, ill-balanced mind. This must be the case, and no device of ingenuity can prevent it, so long as nature is governed by laws, and not caprices. The effects of the law in question are constantly before our eyes, and it is in consequence of their familiarity that we slight the lesson which they teach. Let a man take his food with due regard to quantity, quality, and time, and the functions of his digestive organs are performed with perfect ease, and the whole body feels its refreshing and invigorating effects. If, however, his digestive powers are tasked to their utmost capacity by unlimited indulgence in the pleasures of the table, he becomes a glutton, and

prepares for the tortures of dyspepsia. Let a man, by a judicious course of physical exercises, develop to a certain extent his muscular system, and it will be to him an unfailing source of pleasing and healthful sensations ; but if he devotes himself entirely to this one object, the development of his muscular powers, he will fit himself for no higher sphere than the circus or the ring. So, too, the brain, when properly educated, will exert an incalculable influence upon the happiness of the individual ; but if unduly exercised, the other organs will feel the withdrawal of their rightful share of nervous energy, and sooner or later will proclaim in unmistakable terms the wrongs inflicted upon them. The same law is manifested in the subdivisions of the general function. The brain is the material instrument of the mind, in which term are embraced, not only the faculties of reflection and perception, but the moral sentiments and affections. If the former are cultivated to the neglect of the latter, we may have an intellectual prodigy, but not a finished man shedding forth the influence of a strong and

healthy intellect, and sympathizing with every pulse of the human heart. You will observe, that the evil in these cases is not confined to the positive neglect of a certain faculty, but is witnessed in that partial and imperfect result necessarily following the loss of equilibrium just alluded to. If, therefore, to advance one step farther, the intellectual faculties are unequally cultivated, as it respects one another, in the process of education, the understanding will be deficient in clearness of conception and comprehensiveness of grasp.

It constitutes no part of my present design to criticize the methods of education now in use, except so far as they are connected, more or less directly, with the physical well-being of the pupil ; neither shall I confine myself to that education which is the work exclusively of the professional teacher. In consequence of the facilities for multiplying books, it so happens, that a certain education directed by the individual himself, but scarcely noticed by the casual observer, prevails in every portion of our country, and, in its influence upon the strength and health of the

mind, not subordinate to that which proceeds from the instructions of the school. Its immediate cause, as just stated, is, no doubt, the excessive multiplication of books, especially of a certain class, and is, of course, beyond our control. But this cause may be fairly traced to another that is within our control, and demands our serious attention. In expressing my views on the subject, I shall probably make myself more clearly understood by exposing, in the order of their occurrence, the theoretical and practical errors that have led to the evil in question.

The error that seems to have taken precedence of all the rest, is that of underrating the pupil's literary taste and power of comprehension, in regard to books suitable for general reading. To meet this supposed deficiency, the literature of our day abounds with books intended solely for the young. The world has, probably, never been entirely without books of this kind since books began to be printed ; but, while in former days they were comparatively few, in the form of some simple tale or traditional legend, they are now as

“thick as leaves in Vallombrosa,” embracing every topic supposed to afford materials for instruction or amusement, and constituting a distinct department of literature. The object seems to be, either to bring the subject treated nearer the juvenile comprehension, or to render it more attractive by blending with it a little romance; upon Lord Bacon’s principle, I suppose, that the “mixture of a lie doth ever add pleasure.” Much of the most respectable talent of the day is engaged in supplying the demand for these books, and this supply, joined with that which evinces no talent at all, is devoured by the child with a rapidity unknown to the tardier movements of riper intellects. Whatever may be the subject which the progress of knowledge has brought forward, sooner or later it gets into the shape of a book for children, with all the accessory attractions which the ingenuity of the printer, the binder, and engraver can furnish. Is it desired to acquaint the young pupil with the history of a certain period, or the life of a great man, it would indicate a sad ignorance of human progress to

refer him to those immortal writings in which the events and the actors are described. There is always at hand, or easily accessible, some little book containing the desired information in miniature, divested of all hard words and troublesome reflections, and, peradventure, invested in the garb of an attractive tale. Is it desired to inculcate some important truth in religion, suitable to guide the life and keep the heart from evil, it is thought that the purpose cannot be better accomplished than by means of a story abounding in incident and adventure, and ending, probably, with love and a marriage. Is a lesson in morals to be stamped upon the tender mind, still the never-failing little book will render unnecessary any recurrence to such obsolete authors as Seneca, or Paley, or Johnson. Is botany or chemistry or physics to be taught, still the vehicle is the same. Even the beautiful simplicity of the sacred oracles has not saved them from being converted into namby-pamby, to accommodate them to the taste of the infant generation, and high dignitaries of the Church are not wanting to

give their sanction to the deplorable preparation. In short, nothing seems to be too profound, nothing too simple, nothing too high, nothing too ignoble, to be brought within the compass of this class of books. They have come upon the land like the locusts of Egypt. They are piled up ceiling-high on the shelves of every bookstore ; they fill the closets and tables of every domestic dwelling, from the hovel to the palace ; and, as if they were the most approved means of leading the steps of the young into the paths of virtue, and enlightening the understanding with a knowledge of the truth, they form the great staple of every Sunday-school library in the country.

It is a sufficient objection to this juvenile literature, that it vitiates the taste, weakens the understanding, and indisposes and unfits it for a more elevated kind of reading. By having the results of science or art, the lessons of morality and religion, ever presented in the garb of a story with lively incidents and an agreeable ending, — vice punished and virtue rewarded, according to the most approved methods of romance, — the youth im-

bibes false ideas of the stern realities of life, and finds the common and unadulterated truth too insipid to awaken any interest in his mind. Indeed, these books are read, or, more correctly speaking, devoured, not so much for the sake of instruction as amusement, not so much for the principles they may profess to inculcate as the incidents and adventures in which they abound. The result, I am inclined to believe, is just what might have been expected ; but I submit to those who have better means of judging, whether the youth of our time do not manifest a marked unwillingness to give their attention to any thing calculated to excite any activity of the higher mental faculties. Many a man, I imagine, who finds his children arrived at their twelfth or thirteenth year with no other intellectual furnishing than such books supply, bethinks himself all at once, that long before that age he loved to resort to his father's library, and hang with delight over the pages of some unwieldy history or book of voyages, or, in the absence of more attractive material, plunge into the labyrinths of controversial

divinity. The lads of this generation would stand aghast at sight of the huge folios and formidable octavos over which their fathers spent many a Saturday afternoon, laying up treasures of knowledge as enduring as life. Their mental aliment must be subjected to a process of preparation, whereby it is deprived of its bones and sinews, and seasoned with stimulants to provoke a fastidious and jaded appetite. If this is a fair statement of the effects that have arisen from the abundance of juvenile books, it scarcely admits of a question whether the youth of former times were not more fortunate, who, after having mastered the contents of every book in the house and neighborhood, looked forward with a pleasurable impatience, as Daniel Webster says he and his brother were accustomed to, to the advent of the new year's almanac. I do not doubt that those great men derived more benefit from the humble annual than they would from an unlimited supply of juvenile books, for in less than twenty-four hours every line of poetry was committed to memory, every date fixed in the mind, every

apothegm duly pondered, and every arithmetical puzzle solved.*

We greatly underrate the youthful intellect in supposing that a special class of books is needed for furnishing it with intelligible and attractive reading. The mistake is the more curious, inasmuch as it occurs by the side of another of the opposite character. The very boys and girls who are practically supposed to be unable to read a history except in a diluted state, are kept, for years together, upon the study of grammar, — a science which, even in its elementary state, is of a most abstruse and metaphysical character. And many other school studies, such as geometry, algebra, rhetoric, mental philosophy, require a far greater reach of intellect than many of those works that are the glory of English literature. I believe that those works will furnish an abundance

* It will be observed, I trust, that the objection is urged against the present *excessive* use of juvenile books, without implicating the character of any particular writer. Many an admirable book has been written for children, and the names of Barbauld, Edgeworth, and Sedgwick are associated with memories as profitable as they are pleasant.

of suitable reading for a youth ten years old and upwards, and no one can suppose that they are not better adapted to improve the taste and cultivate the higher powers of the mind than the juvenile books of the day. He may not perceive at every step the deep sagacity of Gibbon, nor appreciate, in the highest degree, the quiet graces of Prescott and Irving, but he will learn on good authority the facts of history, and feel somewhat of its grandeur and dignity. He may not perceive the full significance of Shakspeare's greatest thoughts, nor be charmed with the harmony of Spenser's verse, "in lines of linked sweetness long drawn out," but he will catch an occasional glimpse of the clear upper sphere in which the poet moves, and will fix in his mind many an image of purity and loveliness, of tried virtue, and high-souled sacrifice, that will preserve it, in some degree, from the contamination of ignoble thoughts and desires. I think no one here will maintain, that boys or girls twelve years old, of fair parts and tolerably well educated, are incapable of understanding and enjoying the greater part of Addi-

son, Pope, Goldsmith, Hume, Robertson, Cowper, Burns, Southey, Macaulay, Scott, and Crabbe. And yet, how many such youth there are who never read beyond a page or two of these authors, nor even heard their names ! Indeed, if a person, recollecting the delightful hours they furnished him when first gratifying his love of intellectual pleasures, should propose them to the youth of this generation, he would be likely to be regarded with a look of curiosity, as a man born out of due time, or, at any rate, quite behind the age which has provided more suitable aliment for the tender mind, in the preparations of Peter Parley and his prolific school. This is a serious matter, and well deserving your attention ; but I can only say, in conclusion, that we may carry our systems of school instruction to the highest point of perfection, yet, so long as the juvenile literature of our times maintains its present place in the popular estimation, it will be in vain to expect a generation of vigorous, self-relying, healthy minds. Important, however, as all this is, it is but incidental and subordinate to a point of still greater importance.

This habit of reading books that excite but little activity of thought becomes too strongly fixed to be weakened by the higher aims and purer tastes of riper years. The youth has read, not that he might learn to think, but that he might be amused, and as the appetite only grows by what it feeds upon, increase of years produces no change in the object of his reading. True, the books of children have lost their wonted power to charm ; but now their place is amply supplied by a species of literature no less peculiar and characteristic of the times. The faculty of the mind chiefly addressed in both is the imagination, or that power which forms ideal creations abundantly endowed with those incidents and attributes that constitute the greatest charm in actual realities. In earlier years the pleasure thus obtained is undoubtedly innocent though enervating, and has in it no taint of sin. But at the later period we are now considering, a change has come over the whole spirit of the youth. A new order of emotions, desires, and aspirations has arisen within him, and a veil has been lifted up

from before his vision, disclosing creations of exquisite loveliness whose earthly types are ever near to enliven his conceptions and give them an almost objective existence. The relations of the sexes, scarcely thought of before, have become the dominant subject of his thoughts, and he feels the witchery of an irresistible spell stealing over his senses, and polarizing, if I may borrow a term from physical science, the very fountains of his being. To meet this state of things, to touch the chord that nature has strung apparently for the very purpose, there has recently appeared the species of literature just alluded to, of multifarious shape and boundless quantity. In whatever shape it may come, whether in that of a thin, paper-covered octavo, or of a fractional portion of a weekly sheet, its predominant features are love and adventure. It has but few points in common with the works of distinguished writers of romance. Although the course of true love is a constant ingredient of the latter, yet it is often subordinate to a higher object, and the impurities with which it is associated are rather in-

dicative of bad manners than bad morals. But censurable as some of them undoubtedly are on that score, they are altogether too tame, too much hampered by a decent respect for decorum, to fulfil exactly the object in question, — that of stimulating a tender mind enervated by vicious training and kindling with new and untried desires. Neither is it exactly represented by the works of Eugene Sue or George Sand, for although these are often found in connection with it, yet even their ingenious depravity is a little too refined and retiring to answer all the requirements of the case. A thing is no sooner wanted than it is apt to be created ; hence the yellow-covered literature, as it is called, no less characteristic of our time and country, than the telegraph and chloroform. Like them it is universally diffused. It is met with in all the highways and by-ways of the land ; it is thrust into our faces in every railway-car and steamboat ; it is piled upon the counter of the country store, and fills whole shops in the city ; in short, it spreads its temptations everywhere before the young, and ensnares many a heart in

the toils of its coarse sensuality. Though embracing much that deserves no stronger epithet of censure than foolish or frivolous, and much even that presents a healthy morality, yet the greater part of it is calculated, if not expressly designed, to debase the tone of moral sentiment, to suggest impure ideas, and send forth the imagination to wander into unhallowed paths. The real character of this class of books, I apprehend, is not generally known. They are supposed to be one of the cheap means of spreading information among the people, or at the worst, as merely frivolous and unprofitable. They circulate before our eyes, and excepting some curious inquirer who examines them with a professional object in view, the better class of minds in the community remain as ignorant of their contents as if written in an unknown tongue. And yet the slightest examination discloses enough of their peculiar character to cause the deepest alarm for the safety of the rising generation. Had one of these books been published fifty years ago, instead of being blazoned forth in posters, and exposed in

shop windows, it would have been screened from public view, and its sale been a matter of mystery and concealment ; and if detected, I verily believe, the vendor would have been indicted by a grand jury, under the act which was then far from being a dead letter, prohibiting the sale of indecent publications.

Now let us consider the youth in that transition period which separates childhood from manhood. His mind has become enfeebled by an incessant repletion of juvenile literature, and is unconscious of any manly thoughts or lofty aspirations gained by communion with a higher order of intellect than his own. In this condition the allurements of sense are spread before him in every variety of form, and his ear is open to every siren song that floats upon the breeze. He has much leisure which his tastes dispose him to occupy with reading, and when we consider his previous habits and the peculiar epoch of his life, we cannot be surprised that he should make the acquaintance of this description of books, and abandon himself body and soul to their allurements. I say advis-

edly, body and soul, for its mischievous effects are as obvious and as ruinous upon the one as the other. By a law of our constitution, violent mental emotions thrill through the bodily frame, and this participates in the vital movement. Here, body and mind act and react upon each other, or, more properly speaking, they constitute but one undivided, individual existence. In these books the tender passion is presented with none of those refinements with which it is associated in pure and cultivated minds. It is designedly carnal and provocative of impure desire, and the youth who surrenders himself to its seductions becomes thenceforth a stranger to every manly sentiment, while his imagination revels in a world of sense filled with the charms of a Mohammedan paradise. From this point there is but one step, it is true, to actual, overt licentiousness, but a lingering feeling of shame, a faint sense of responsibility, and a timidity natural under the circumstances, often hold him back from taking that step, and he is contented to indulge in secret with such means as nature has provided him. Month after month,

year after year, are spent in this dreamy existence, the unholy flame constantly nourished by the kind of reading in question, and its debasing effects as constantly assisted by the habit of self-indulgence. Sooner or later there begins a series of pathological phenomena which, with more or less rapidity, but usually covering a period of years, conduct their miserable subject to mental and physical ruin. Time and occasion forbid me to dwell upon the details of this fearful condition, — the muscular system faltering under the least exertion and constantly oppressed by a sense of lassitude and fatigue ; the nervous system overcharged with irritability, affected by the slightest emotion, and turned into a source of weariness and pain ; the mind tortured almost to distraction by groundless anxiety and self-reproach, harassed by a sense of guilt and vague apprehension of a future disclosing not a single ray of hope, and revolving thoughts of suicide as the only means of escaping from the ever-gnawing worm. Neither can I dwell upon the more common phasis of this condition, — the cloud of delusion that rapidly

envelops the whole mind and distorts all its relations ; the utter loss of the power of connected thought ; the suspicions, jealousies, and ungovernable impulses that precipitate the individual into some fearful act of violence ; and that final brutalization of our nature where, for years together, no spark of humanity gleams through the loathsome prison-house of flesh. But I implore the teacher, aye, and the parent, to make themselves acquainted with the phenomena which I can barely allude to. Could they witness occasionally, as I do every day, the melancholy results that may be fairly attributed to that kind of mental training which stimulates the imagination and the lower moral sentiments, I am sure they would not be disposed to charge me with riding a hobby, or representing an occasional accident in the light of a great and wide-spreading evil. I repeat it with unmistakable plainness, that in every hospital for the insane there may be seen a form of mental disease preëminently loathsome and incurable, many cases of which, I have no hesitation in saying, may be traced to the perusal of this yellow-covered literature. How many a noble intellect,

that once gave promise of the soundest fruit, has thus been blasted, and with it the hopes, the pride, the solace of many loving hearts, the world generally has but little conception. If, by a timely admonition of yours, a single youth should be arrested in his progress, not to death, but to a condition infinitely worse, death in life, — death in a living form bearing the image and superscription of its Maker, but utterly deserted by the light of the Divinity that stirs within us, — you might consider yourself as amply repaid for any amount of attention you may have given to the subject.

Here endeth my discourse which, I hope, has not exceeded the limits of your patience. Whether or not you coincide entirely in my views, I trust I have not failed, at the very least, to strengthen your convictions of the great importance of the subject we have been considering. A single lecture can do little more than suggest a hint, or point out a path of inquiry. It is for you to settle it with your own sense of professional duty, whether you will follow them up, and thoroughly learn the relations that nature has estab-

lished between the organic properties of the brain and the cultivation of the mind, or be content with the ordinary current and traditionary notions respecting them. There certainly never was a time, notwithstanding all the light that is abroad in the world, when full and correct information thereon was more needed, for there never was a time that witnessed to such an extent the ruinous effects of a partial, disproportionate, disjointed education. There never was a time, in this country at least, when the mind was so systematically treated as if it had no connection with the body, and did not depend upon it, in a great degree, for its vigor. Never was there a time, when men filling the high places of society were so often struck down, for want of that hardihood and elasticity of brain which a really good education would have furnished. The world has now a right to look for healthier and higher views, and it is to be hoped that teachers and parents will begin to feel, and to act upon the conviction, that every step in the process of education should be considered in reference to an indispensable result, — a sound mind in a sound body.

